

BRIEF DESCRIPTION OF THE DRAWINGS

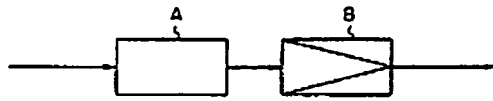
Fig. 1 shows a block diagram of the embodiment example of the present invention. Fig. 2 shows a block diagram illustrating the idea of the prior art predistortion method. Fig. 3 shows a block diagram of one example of the distortion generator used for the circuit of Fig. 2. Fig. 4, Fig. 5, Fig. 6 (a), (b), (c) and Fig. 7 show characteristic graphs for illustrating the operation and effect of the present invention.

- 1. input signal
- 2, 3, 4, 5. branch circuit
- 6, 7, 8. delay line
- 9. subtraction circuit
- 10, 11, 12, 13, 14, 14a, 32. variable attenuator
- 15, 15a, 31. non-linear element
- 16. phase shifter
- 17, 18. adding circuit
- 19. output signal
- 20. first distortion output circuit
- 21. second distortion output circuit
- 30. reverse distortion generation circuit

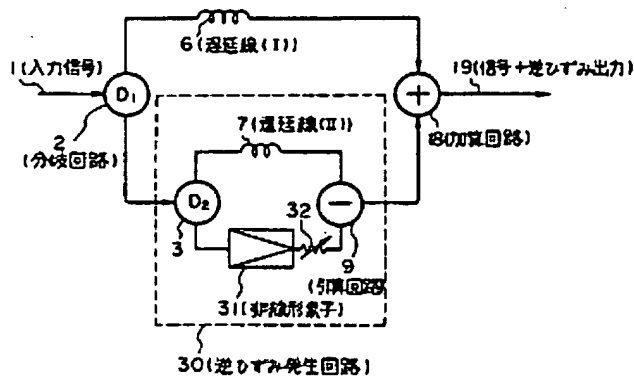
Figure 1 is a schematic diagram of a two-channel electronic circuit. The top channel (20) is enclosed in a dashed box and contains a delay line (7), a multiplier (15), and a subtractor (14). It receives an input signal (1) through a discriminator (D1) and a frequency divider (2). The bottom channel (21) is also enclosed in a dashed box and contains a delay line (8), a multiplier (15a), and a subtractor (14a). It receives an input signal (5) through a discriminator (D2) and a frequency divider (3). Both channels output signals (18 and 19) through adders (18 and 19) and a final output (16).

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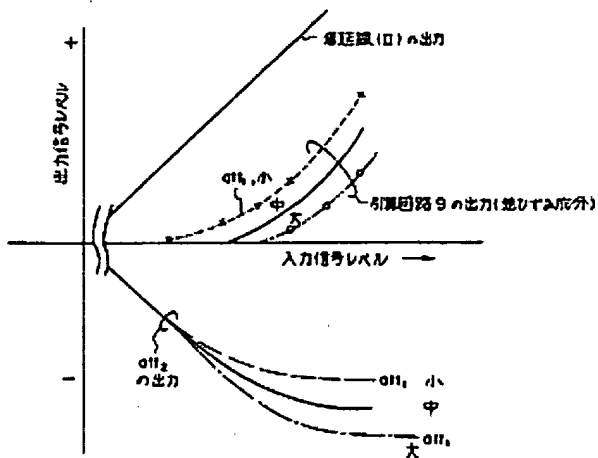
第2図



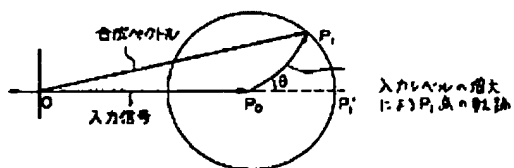
第3図



第4図



第5図



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Figure 1 consists of three subplots labeled (a), (b), and (c).

(a) This plot shows the magnitude response of the PLL system. The vertical axis is labeled '増大出力 (dB)' (Gain Output in dB) and ranges from -20 to 0. The horizontal axis is labeled '入力レベル (dB)' (Input Level in dB). A dashed line represents the '線形' (Linear) response. Two solid curves represent the '補償後の特性' (Characteristics after compensation), showing a roll-off at higher input levels. Labels include '線形' (Linear), '補償後の特性' (Characteristics after compensation), and '補償後の特性' (Characteristics after compensation).

(b) This plot shows the magnitude response of the first output circuit. The vertical axis is labeled '出力' (Output) and the horizontal axis is labeled '入力レベル' (Input Level). The curve shows a roll-off at higher input levels. Labels include '第1の出力回路の出力' (Output of the first output circuit) and '補償後の位相ずれの残量' (Residual phase shift after compensation).

(c) This plot shows the magnitude response of the second output circuit. The vertical axis is labeled '出力' (Output) and the horizontal axis is labeled '入力レベル' (Input Level). The curve shows a roll-off at higher input levels. Labels include '第2の出力回路の出力' (Output of the second output circuit) and '補償後の位相ずれの残量' (Residual phase shift after compensation).

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